

Claims

What is claimed is:

1. A polyolefin multilayer film comprising a polyolefinic core layer, and a first polyolefin skin layer, adjacent to the core layer, comprising a blend of an ethylene propylene random copolymer at 50-90 wt.% of the skin layer and metallocene catalyzed plastomer at 10-50% wt.% of the skin, wherein the first polyolefin skin layer does not contain a thermoplastic or natural rubber and provides a cold seal receptive surface for a cold seal adhesive.
2. A polyolefin multilayer film comprising a polyolefinic core layer, and a first polyolefin skin layer, adjacent to the core, comprising a metallocene catalyzed isotactic polypropylene polymer, wherein the first polyolefin skin layer does not contain a thermoplastic or natural rubber and provides a cold seal receptive surface for a cold seal adhesive.
3. A polyolefin multilayer film comprising a polyolefinic core layer, and a first polyolefin skin layer, adjacent to the core layer, comprising a butene propylene copolymer that contains from 5 wt% to 22 wt% of butene wherein the first polyolefin skin layer does not contain a thermoplastic or natural rubber and provides a cold seal receptive surface for a cold seal adhesive.
4. The polyolefin multilayer film according to claims 1, 2 or 3, further comprising a second polyolefin skin opposite the core layer from said first polyolefin

skin layer.

5. The polyolefin multilayer film according to claims 1, 2 or 3, wherein the first polyolefin skin layer is corona treated.

6. The polyolefin multilayer film according to claims 1, 2 or 3, wherein said polyolefinic core layer comprises isotactic polypropylene

7. The polyolefin multilayer film according to claim 4, wherein said second polyolefin skin layer is made of a polypropylene resin with the endothermic main peak of crystal fusion in a range of 155 to 163°C and with a heat of crystal fusion in the range of 20 to 90 J/g.

8. The polyolefin multilayer film according to claim 4, wherein said second polyolefin skin layer is subjected to a surface treatment selected from the group consisting of corona discharge treatment, flame treatment, atmospheric plasma treatment, and corona discharge treatment in a nitrogen and carbon dioxide environment.

9. The polyolefin multilayer film according to claim 4, wherein said second polyolefin skin layer is surface treated by a corona discharge treatment in a nitrogen and carbon dioxide environment.

10. The polyolefin multilayer film according to claims 1, 2 or 3 wherein said polyolefin multilayer film is a biaxially oriented film.
11. The polyolefin multilayer film according to claim 1, wherein said ethylene propylene random copolymer is from 2 wt% to 7 wt% ethylene content.
12. The polyolefin multilayer film according to claim 11, wherein said ethylene propylene random copolymer is from 2.5 wt.% to 5 wt.% ethylene content.
13. The polyolefin multilayer film according to claim 1, wherein said metallocene catalyzed plastomer is selected from the group consisting of ethylene homopolymers, copolymers of ethylene and at least one C₄-C₂₀ alpha-olefin.
14. The polyolefin multilayer film according to claim 1, wherein said metallocene catalyzed plastomer has a density in the range from 0.86 g/cm³ to 0.945 g/cm³.
15. The polyolefin multilayer film according to claim 14, wherein said metallocene catalyzed plastomer has a density in the range from 0.89 g/cm³ to 0.91 g/cm³.

16. The polyolefin multilayer film according to claim 1, wherein said first polyolefin skin layer further comprises a blend of ethylene propylene copolymer at 60-80 wt.% of the skin layer and an ethylene octene plastomer at 20-40 wt.% of the skin layer.

17. The polyolefin multilayer film according to claim 1, wherein said first polyolefin skin layer further comprises a blend of ethylene propylene copolymer at 75-85 wt.% of the skin layer and an ethylene octene plastomer at 15-25 wt.% of the skin layer.

18. The polyolefin multilayer film according to claim 2, wherein said metallocene catalyzed isotactic polypropylene has a melt flow rate of from 3 to 14 g/10 min.

19. The polyolefin multilayer film according to claim 2, wherein said metallocene catalyzed isotactic polypropylene has a molecular weight distribution of between 1.7 and 4.0.

20. The polyolefin multilayer film according to claim 3, wherein said butene propylene copolymer has a butene content of from 8 wt% to 14 wt%.

21. The polyolefin multilayer film according to claims 1, 2 or 3 wherein said first polyolefin skin layer is subjected to a surface treatment selected from the group consisting of corona discharge treatment, flame treatment, atmospheric plasma treatment,

and corona discharge treatment in a mixed gas environment of nitrogen and carbon dioxide.

22. The polyolefin multilayer film according to claims 1, 2 or 3, wherein said surface treatment is corona discharge treatment or corona discharge treatment in a mixed gas environment of nitrogen and carbon dioxide.

23. The polyolefin multilayer film according to claims 1, 2 or 3, wherein said first polyolefin skin layer forms a cold seal adhesion of the cold seal adhesive applied on the first polyolefin skin layer of 450 g/inch or more by a 90(degree) T-peel test, said cold seal adhesive being applied at a coating weight of 3.0 lbs/ream and aged at ambient temperature for one week.